





## **Project Overview**

- Contract 29-074-03
- Rehabilitation of BR 1-501 (Newport Viaduct)
- SR 141 over:
  - SR4
  - Local Roads
  - AMTRAK
  - Christina River
- Construction: 810 Days
  - Summer 2011 Fall 2013



#### **Project Purpose and Reconstruction Activities**

- Rehabilitate the Newport Viaduct on SR 141 that connects I-95 with Newport
  - DelDOT will maintain two
    lanes of traffic in each
    direction during peak periods
    throughout construction.
     Single lane and ramp closures
    permitted on nights and
    weekends only.



**Bridge Deck** 



**Expansion Joint** 



**Bridge Bearing** 



**Abutments** 

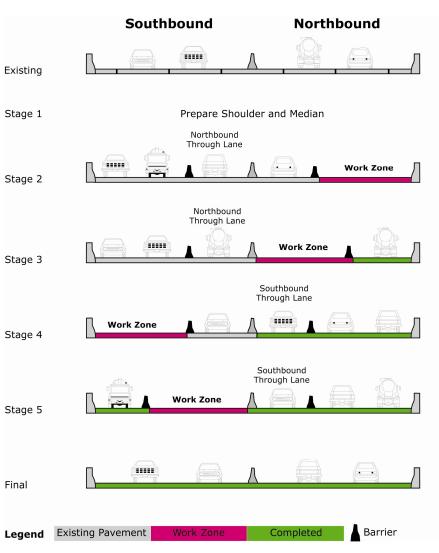


**Piers** 





#### Traffic Control – Local and Through Lanes



- Maintain 2 Lanes in each direction (including "crossover" lane)
  - As required, reduce to single "crossover" lane in one direction for nighttime and weekend periods.
- Maintain Access to ramps from at least one lane in each direction
  - As required, eliminate access to ramps for nighttime and weekend periods
- Minimum Lane Widths
  - Two Adjacent Lanes 23'-0" curb-tocurb
  - Single Lane 13'-0" curb-to-curb





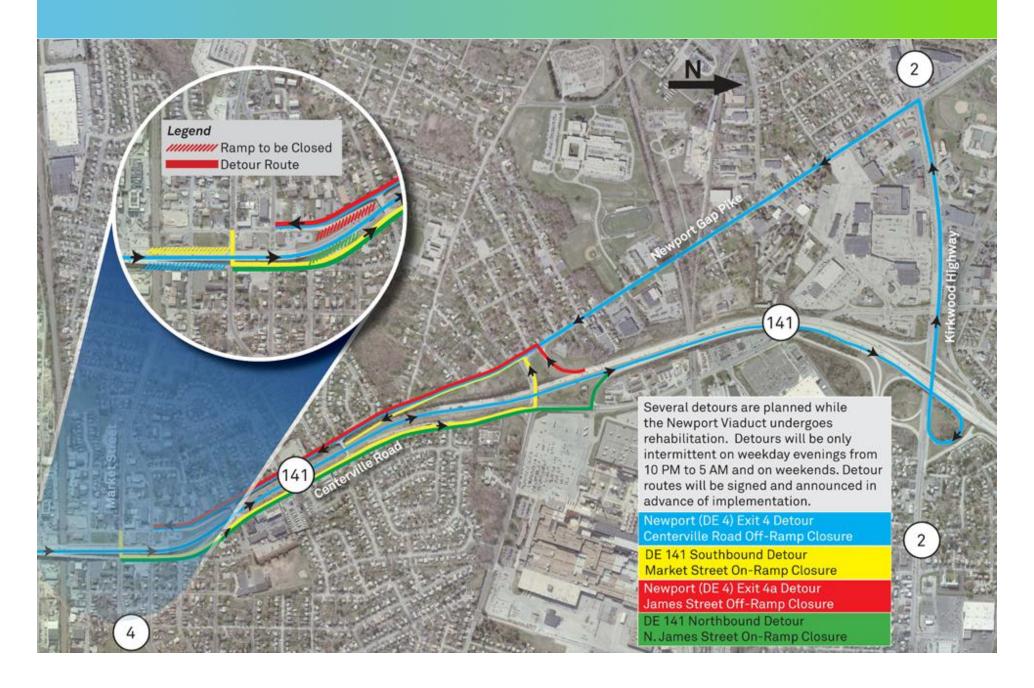
#### Now – End of July (Approximately): Phase 1A

- Strengthening NB & SB outside shoulders
- Catch basin repair work
- Intermittent lane/ramp closures
  - DE-141 NB
    - Right-most through lane from I-95 ramps to Exit 5
    - Exit 4 to DE-4 (Blue detour in effect)
    - Entrance ramp from James Street (Green detour in effect)
  - DE-141 SB
    - Right-most through lane from Exit 5 to Exit 4
    - Exit 4 to DE-4 (Red detour in effect)



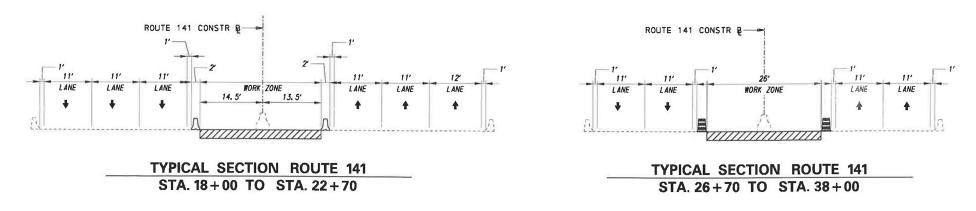


#### **Detour Routes**

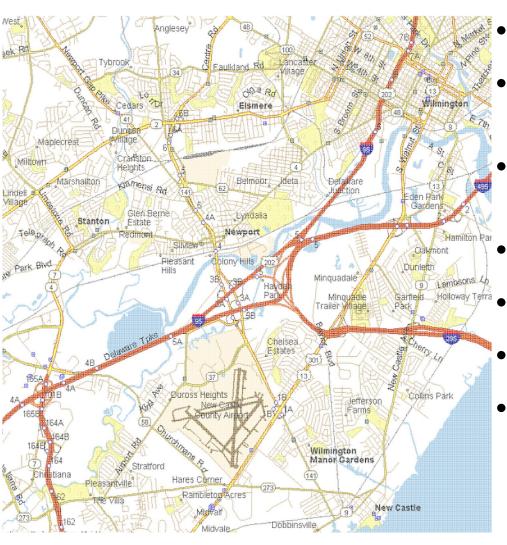


## August – October (Approximately): Phase 1B

- Strengthening NB & SB inside shoulders from I-95 ramps to Burnside Blvd.
- Constructing NB crossover
- Through lanes shifted to outside shoulders to maintain number of through lanes
- Intermittent lane closures of left-most through lane
  - No ramp closings associated with this phase
  - Emergency turn around area south of DE-141 NB/SB split



## **Traffic Management**



- Crossover Guide Signage
- Speed Management Trailer Signs
- Speed Management Traffic Officers
- Portable Message Signs
- Traffic Signal Upgrades
- Traffic Monitoring Cameras
- Traffic Monitoring/Queue Detection Stations



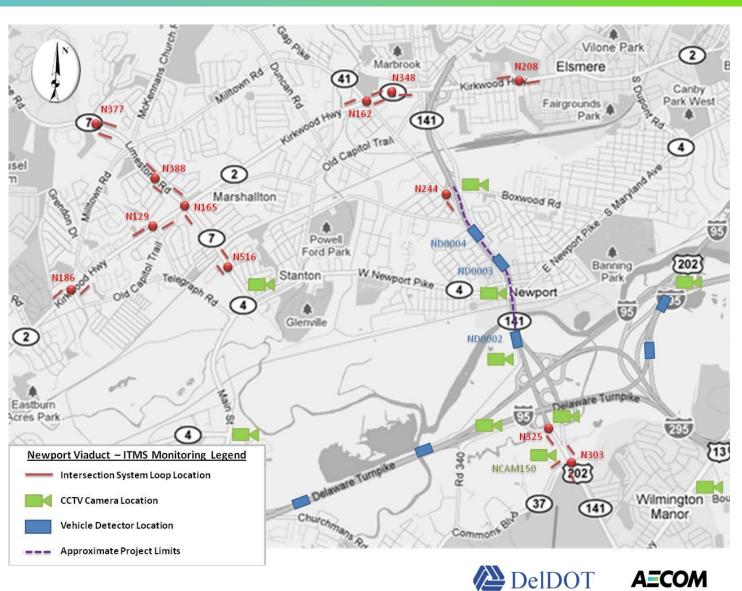


## **Traffic Monitoring Devices**

System Loops

CCTV Cameras

Wavetronix



# Traffic Mitigation - Integrated Transportation Management System

- Information to Support Travel Decisions
  - Traffic Conditions
  - Advanced notification of construction efforts
  - Planned Detours
  - Website: www.deldot.gov
  - Radio: WTMC (1380 AM)
- Optimal Travel Reliability and Travel Time
  - Traffic signal upgrades (DE-2, DE-4, DE-7, DE-62)
  - Timely response to incidents
  - Safety
  - Speed Monitoring
  - Coordination with emergency service providers















## **Design Input from TMT**

- Glare screens on concrete safety barriers separating directional travel
- Dedicated turn-around area for emergency vehicles at southern end of project limits
- On-Call towing service
- Video feed for Minquas Fire Co.





